

# Personal Expense Tracker

## Problem statement:

In today's fast-paced world, individuals need to track and manage their expenses effectively. Your task is to build a personal expense tracker that allows users to log daily expenses, categorize them, and track spending against a monthly budget. The tracker should also be able to save and load expenses from a file for future reference.

## Objectives:

1. Design and implement a personal expense tracker that enables users to manage their expenses
2. Allow users to categorize expenses and set monthly budgets
3. Implement file-handling functionality to save and load expense data
4. Create an interactive, menu-driven interface for ease of use

## Please find the python code in code section:-

**displayMenu()** function displays an interactive menu to choose an option. This time, expenses tracker is loaded from disk to cache (list of dictionary objects).

User has following options to select

1. If the user selects option 1, call the function to add an expense
2. If the user selects option 2, call the function to view expenses
3. If the user selects option 3, call the function to track the budget.
4. If the user selects option 4, call the function to save expenses to the file.
5. If the user selects option 5, save the expenses and exit the program.

```
----- Expense Tracker Application-----  
Welcome Buddy!
```

```
-----Menu Options-----  
1. Add Expense  
2. View Expenses  
3. Track Budget  
4. Save Expenses  
5. Exit
```

```
Select Your Option 
```

If Option 1 selected, it calls **addExpenses()** function and ask user to input their expenses.

```

----- Expense Tracker Application-----
Welcome Buddy!

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

Select Your Option 1
-----Add Expense-----
input date of expense in below format (YYYY-MM-DD) 2025-03-01
input expenses category Food
input amount 300
input description grocery items
New record updated
{'dateofexp': '2025-03-01', 'category': 'Food', 'amt': 300.0, 'desc': 'grocery items'}

Please press 6 to repeat menu options 

```

If Option 2 selected, it calls viewExpenses() function and shows the expenses.

```

----- Expense Tracker Application-----
Welcome Buddy!

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

Select Your Option 2
-----View Expenses-----
{'dateofexp': '2025-03-18', 'category': 'other', 'amt': '120', 'desc': 'utility'}
{'dateofexp': '2025-03-15', 'category': 'food', 'amt': '700', 'desc': 'grocery'}
{'dateofexp': '2025-03-11', 'category': 'utility', 'amt': '30', 'desc': 'phone bill'}
{'dateofexp': '2025-02-11', 'category': 'food', 'amt': '1000', 'desc': 'monthly expense'}
{'dateofexp': '2025-03-01', 'category': 'Food', 'amt': '300.0', 'desc': 'grocery items'}

Please press 6 to repeat menu options 

```

If Option 3 selected, it calls trackBudget() function and shows the current month budget, expenses and alert if expenses exceeded the budget amount. User can reset the budget amount if he wants.

```

----- Expense Tracker Application-----
Welcome Buddy!

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

Select Your Option 3
-----Track Budget-----
current month budget: 600.0
current month expenses: 1150.0
Current Month Expenses exceeded budget
Press 1 to reset the budget 

```

If Option 3 selected, it calls saveExpenses() function which saves the expenses and budget into CSV file.

```

----- Expense Tracker Application-----
Welcome Buddy!

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

Select Your Option 4
Expenses saved successfully
-----Save Expenses-----

Please press 6 to repeat menu options N

```

If Option 5 selected, User exits from the application menu. At this time, expenses tracker files are saved and global variables values cache is reset.

```

----- Expense Tracker Application-----
Welcome Buddy!

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

Select Your Option 5
----Bye! comeback again-----
-----You are Exit-----

```

Note:- Exception handling implemented in case users input a wrong value or any issue in file opening or saving.

```

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

```

Select Your Option 1

-----Add Expense-----

input date of expense in below format (YYYY-MM-DD) 7987978  
Input values are not in correct format. Try again

```

-----Menu Options-----
1. Add Expense
2. View Expenses
3. Track Budget
4. Save Expenses
5. Exit

```

Select Your Option 1

-----Add Expense-----

input date of expense in below format (YYYY-MM-DD) 2025-03-04

input expenses category Utility

input amount guyguygugu

Input values are not in correct format. Try again

Please press 6 to repeat menu options